



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
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JUL 26 1990

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 905 517 895

Cris Anderson, Manager
Environmental Affairs
L.E. Carpenter
Suite 3600
1301 Ninth Street
Cleveland, OH 44114-1824

Dear Mr. Anderson:

Re: L.E. Carpenter
Amended ACO signed September 26, 1986
Revised Report of Remedial Investigation Findings

The New Jersey Department of Environmental Protection (Department or NJDEP) has reviewed the above cited report dated June 1990 submitted by Weston Services, Inc. and has prepared the following comments:

1. Groundwater Flows

Triangulation of site ground water elevation data and calculation of gradients indicates that ground water flow is generally to the N-NE, away from the adjacent Washington Forge Pond/Rockaway River, and there are gentle to almost flat gradients in the shallow and intermediate zones of the granular aquifer. In temperate climates, under natural conditions, ground water generally moves from aquifers toward streams. Under these conditions, the streams are gaining. This is opposite to those conditions presently existing at the site which indicate a losing stream.

One likely explanation is that the dammed Washington Forge Pond and its discharges to the Rockaway River are recharging the local aquifer creating a mounding which reverses the natural gradient and ground water flow toward the river. Since the existing hydraulic gradients are gentle or nearly flat, a reduction in water level at the Pond or of its discharges to the Rockaway River would cause ground water flow and



hydraulic gradients to reverse back toward the river. This condition may have existed in the past during droughts or even periods of lessened rainfall and such a hydraulic regime could explain the presence of elevated levels of BN in the river sediments.

Therefore, L.E. Carpenter must evaluate the possibility of ground water flow toward the river. Such an evaluation could include gathering historical pond and stream level data, possibly kept by the local municipality, and comparing these with historical ground water levels if available, at the site production well. Additionally, the consultant could check historical aerial photographs, or local municipality, for the existence of the dam at Washington Forge Pond during the time when the alleged contamination occurred at the site.

2. The RI refers to preliminary corrective action limits developed by NJDEP for the site, (pg. 12, para. 4).

Several of these limits are being up-dated since the list was issued to L.E. Carpenter. Any comparison of ground water data in this report should reference NJSDWA-MCLs or NJAC 7:9-6, Ground Water Standards. Specific questions concerning ground water clean-up goals should be directed to the NJDEP. For comparison of soil data, reference should be made to the most current NJDEP Soil Action Levels.

3. Results of PP Metals and other Inorganics
Tables 19a and 19b, (first and second round ground water results) are reported in different units, which makes comparison of data difficult. These tables should be revised to report all values in ppm units.
4. The Executive Summary on page 13, para. 6 states that, "Based on the findings of this investigation, it is concluded that there is no migration of volatile organic compounds from L.E. Carpenter property to off-site areas."

This statement is incorrect and should be deleted since the summary goes on to describe site related contamination in the Air Products drainage ditch (SS-5, SW-5) and Wharton Enterprises Inc. Property, (TP-3a).

5. General Site Overview, Sec. 4.1
In a letter dated November 30, 1989 to Mr. Ed Kaup from Geo Engineering a statement was made that, "All currently existing on-site tanks contain no liquid product at this time." Based on the statements made in the November 30 letter, permission was granted by the Department for temporary closure of the underground storage tanks on the L.E. Carpenter property.

The Revised RI Report lists several underground storage tanks containing considerable liquid (Table 1). This information contradicts the November 30, 1990 letter and must be clarified.

6. Concerning page 75, figure 20, L.E. Carpenter should explain why the "deep" water level obtained at well 17d was not incorporated in the

"deep" water level contour map. If the level (625.96 ft) had been incorporated, it would have shown "deep" flow toward the river and not away, as inferred.

7. Although sampling locations at the Rockaway River did not reveal site related contamination, it is premature to write off the Rockaway River as a potential exposure pathway. The analytical data from the proposed surface water and sediment sampling locations (Supplemental Sampling Plan, June 1, 1990) must be evaluated before surface water can be eliminated as a potential exposure pathway.

The Department finds the final draft of this draft of the Remedial investigation report acceptable providing the foregoing comments are appropriately addressed. Please submit the revised remedial investigation report, excluding the evaluation of the ground water flow which should be covered in the Supplemental RI Report, within 10 working days after the receipt of this letter.

Should you have any questions you may contact me at (6090 633-1455.

Very truly yours,



Edgar G. Kaup, P.E., Case Manager
Bureau of Federal Case Management

EGK:mcs

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